Marine

DIESEL ENGINES 20V 8000 M71/71L
for fast vessels with high load factors (1B)

Optional equipment and finishing shown. Standard may vary.

<table>
<thead>
<tr>
<th>Engine type</th>
<th>20V 8000 M71</th>
<th>20V 8000 M71L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated power ICXN kW (bhp)</td>
<td>8200 (10995)</td>
<td>9100 (12205)</td>
</tr>
<tr>
<td>Speed rpm</td>
<td>1500</td>
<td>1500</td>
</tr>
<tr>
<td>No. of cylinders</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Bore/stroke mm (in)</td>
<td>265/315 (10.4/12.4)</td>
<td>265/315 (10.4/12.4)</td>
</tr>
<tr>
<td>Displacement, total l (cu in)</td>
<td>347.4 (21200)</td>
<td>347.4 (21200)</td>
</tr>
<tr>
<td>Flywheel housing</td>
<td>EPA 2</td>
<td>EPA 2</td>
</tr>
<tr>
<td>Exhaust optimization</td>
<td>IMO II</td>
<td>IMO II</td>
</tr>
</tbody>
</table>

1) IMO = International Maritime Organisation (Marpol-convention)
### Fuel consumption

<table>
<thead>
<tr>
<th></th>
<th>20V 8000 M71</th>
<th>20V 8000 M7L</th>
</tr>
</thead>
<tbody>
<tr>
<td>at rated power</td>
<td>g/kWh</td>
<td>190</td>
</tr>
<tr>
<td></td>
<td>bhp</td>
<td>1877</td>
</tr>
<tr>
<td></td>
<td>gal/hr</td>
<td>496</td>
</tr>
</tbody>
</table>

1) Tolerance +5% per ISO 3046, Diesel fuel to DIN EN 590 with a min L.H.V. of 42800 kJ/kg (18390 BTU/lb)

### Standard equipment

#### Starting system
- Air starter motor, 15 bar; press. reduct. station 40/15 bar, coolant preheating system

#### Oil system
- Lube oil pump, automatic filter with backflushing, centrifugal oil filter, lube-oil heat exchanger, lube oil priming pump, lube oil level monitoring/replenishment system, switchboxes for lube oil replenishment and priming pumps

#### Fuel system
- Fuel delivery pump, fuel duplex filter with diverter valve, "common rail" fuel injection system with high-pressure pump, pressure accumulator and electronically fuel injection with cylinder cutout system, jacketed HP fuel lines, leak-off fuel tank level monitored, fuel hand pump, fuel pre-filter with water separator, fuel recouler

#### Cooling system
- MTU-split-circuit coolant system, coolant-to-raw water plate core heat exchanger, centrifugal raw water pump with priming system, coolant circulation pump, coolant expansion tank

#### Combustion air system
- Engine coolant temperature-controlled intercooler, sequential turbocharging with 4 water-cooled turbochargers, on-engine set of seawater-resistant combustion-air filters

#### Exhaust system
- Triple-walled, liquid-cooled, on-engine exhaust manifolds, exhaust bellows (horizontal discharge)

#### Mounting system
- Resilient mounts

#### Power transmission
- Torsional and offset compensating couplings

#### Engine management system
- Engine control and monitoring system (MDEC), interface to remote control and monitoring system, local operating panel (LOP)

#### Interfaces
- Flexible joints (hose lines, rubber bellows)

### Optional equipment

#### Starting system
- Compressed air tanks

#### Monitoring/control system
- Monitoring and control system MCS-5, remote control system RCS-5

#### Gearbox options
- Various gearbox models

#### Classification
- ABS, BV, CR, DNV, GL, KR, LR, NK, RINA incl. necessary extensions to scope of supply

Reference conditions:
- Power definition according ISO 3046
- Intake air temperature 25°C/Sea water temperature 25°C
- Intake air depression 15 mbar/Exhaust back pressure 30 mbar
- Barometric pressure 1000 mbar
- Power reduction at 45°C/32°C: none

Specifications are subject to change without notice. All dimensions are approximate, for complete information refer to installations drawing. For further information consult your MTU distributor/dealer.

Rolls-Royce Group
www.mtu-solutions.com

The Rolls-Royce name, Rolls-Royce badge and Rolls-Royce monogram logos are registered Trade Marks of Rolls-Royce plc